


APPLICATIONS

- Civil, Industrial, farming, fire-fighting, boosting systems
- Water treatment plants (reverse osmosis, filtrations)
- Irrigation system
- Washing system
- Movement of hot and cold water for heating, cooling and air-conditioning system.
- Boiler feeding
- Movement of moderately aggressive chemical liquids without solids.

MATERIALS

- Impeller, diffusers, casing cover, outer casing, shaft sleeve, coupling covers, fixing in contact with liquid: **AISI 304 stainless steel**
- Bottom casing: **AISI 304 stainless steel (EVM) - cast iron (EVMG), AISI 316L (EVML)**
- Motor bracket and base: **cast iron (not in contact with the pumped liquid)**
- Bearings (in contact with liquid): **tungsten carbide**
- Mechanical seal: **Silicon carbide/carbon/Viton**
- Shaft: **AISI 316 stainless steel**
- Tie rods and fixings not contact with liquid: **zinc coated stainless steel**

STANDARD SPECIFICATION - EVM(G)

Model type	3	5	10	18	32	45	64
Application	Water supply, Light Industrial (boiler feed, washing, coolant etc.)						
Temperature range	-15 to +120° C						
Flow / head	80 m ³ /hr (max); 300m (max)						
Max. working pressure	1.6/2.5MPa (16Bar/25Bar)				1.6/2.5/3.0Mpa (16/25/30Bar)		
Sealing	16Bar:Mechanical-seal - according to DIN				Cartridge type Mechanical-seal		
	25Bar:Cartridge Mechanical-seal - according to DIN				- according to DIN		
Connecting flange	OVAL OR DIN TYPE				DIN TYPE		
Material	Impeller	AISI 304					
	Stage casing	AISI 304					
	Bottom casing	Cast iron					
	Head cover	Cast iron					
	Outer sleeve	AISI 304					
	Shaft	AISI 316					
	Casing ring	EPDM-AISI316					
	Rubber/O-ring	EPDM					
	Mechanical seal	Silicon Carbide / Carbon / FPM					
Motor	No. of Poles	2P (3000rpm:50Hz -- Synchronous speed)					
	Flange Mount	IM B14 (up to 4KW); IM B5 (above 5.5KW)					
	Voltage/Hz	380V/415V:50Hz (or 400V:50Hz)					
OPTIONAL SPECIFICATIONS							
Material of Construction	All wetted parts in SS304 available upon request.						
Connecting flange	Vitaalic coupling only for AISI316 pump						
	DIN Round Flange for 16Bar range						
Motor	No. of Poles	IEC 4P model					


STANDARD SPECIFICATION - EVM(L)

Model type	3	5	10	18	32	45	64
Application	Water supply, R.O., D.I. Water, ultra-filter systems, process water, etc.						
Temperature range	-15 to +120° C						
Flow / head	80 m ³ /hr (max); 300m (max)						
Max. working pressure	1.6/2.5MPa (16Bar/25Bar)				1.6/2.5/3.0Mpa (16/25/30Bar)		
Connecting flange	OVAL OR DIN TYPE				DIN TYPE		
Material	Impeller	AISI 316L					
	Stage casing	AISI 316L					
	Bottom casing	AISI 316L stamped				AISI 316 casting	
	Head cover piece	AISI 316L					
	Outer sleeve	AISI 316L					
	Shaft	AISI 316					
	Casing ring	PTFE(Teflon)-AISI316					
	Rubber/O-ring	Viton					
	Mechanical seal	Silicon Carbide/Carbon/FPM (OPTION: SIC vs SIC)					
Motor	No. of Poles	2P (3000rpm:50Hz -- Synchronous speed)					
	Flange Mount	IM B14 (up to 4 KW); IM B5 (above 5.5 KW)					
	Voltage/Hz	380V/415V:50Hz (or 400V:50Hz)					
OPTIONAL SPECIFICATIONS							
Connecting flange	Vitaalic coupling only for AISI316 pump						
	DIN Round Flange for 16Bar range						
Motor	No. of Poles	IEC 4P model					



VERTICAL MULTI-STAGE STAINLESS STEEL PUMPS

EVM

EBARA Corporation was established in 1912 as a pump manufacturer and today EBARA is the world's foremost manufacturer of pumps and pump system. EBARA is proudly presenting Vertical Multi-stage pump type EVM, manufacture with great experience of EBARA in design and production of stamped stainless steel pumps. EBARA EVM pumps offer technically advance designs to meet most market demands, including pumping of aggressive liquid.

Two standard pump options are available to satisfy most of the market requirements:

- EVM(G): Bottom casing in cast iron, other liquid contact parts in SS304 stainless steel for general water supply usage
- EVM(L): All wetted contact parts in SS316 stainless steel for aggressive liquid pumping operation.

Optional materials available upon request: All wetted contact parts in SS304 stainless steel for industrial pumping applications.

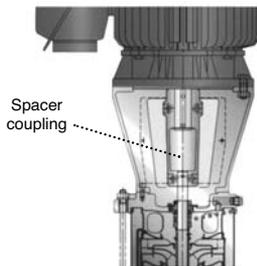
1. Quality motor used.

Standard IEC motors used for EVM pump; thus ensure reliability in pump operation.

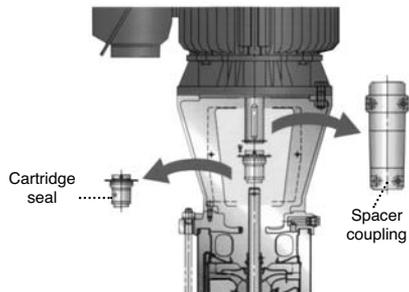
2. Spacer coupling for user-friendly servicing.

For 11kW & above models, uniquely designed 'split' type spacer coupling are used to permit easy assembly/disassembly works without dismantling pipework and motor.

Normal Operation



During Servicing



3. Cartridge mechanical seal.

Cartridge mechanical seal is used for all pump models, except EVM 3-18 (16Bar). Thus permit easy maintenance works at site.



4. Wide selection options.

Two (2) pump types are available as standard i.e. EVMG (Cast iron bottom casing; other wetted parts in SUS304) and EVML (All wetted parts in SUS316L).

- All wetted parts in SUS304 available as option.

EVM(G) Version
FC/SUS304

EVM(L) Version
SUS316

Option: EVM Version
SUS304

5. High efficiency hydraulic design.

EBARA owned R&D has resulted in the newly developed hydraulic parts for EVM, particularly impellers and intermediate casing that provide high efficiency operation.



2D S/S impeller



3D S/S impeller

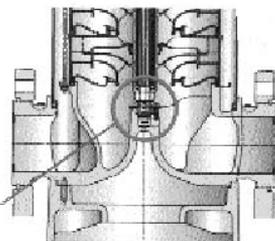


Guide vane
intermediate casing

6. Bottom casing support.

For EVM 45 and 64, unique bottom casing bearing is used to enhance longer operating life of the pumps.

Tungsten carbide
Bottom Bearing.

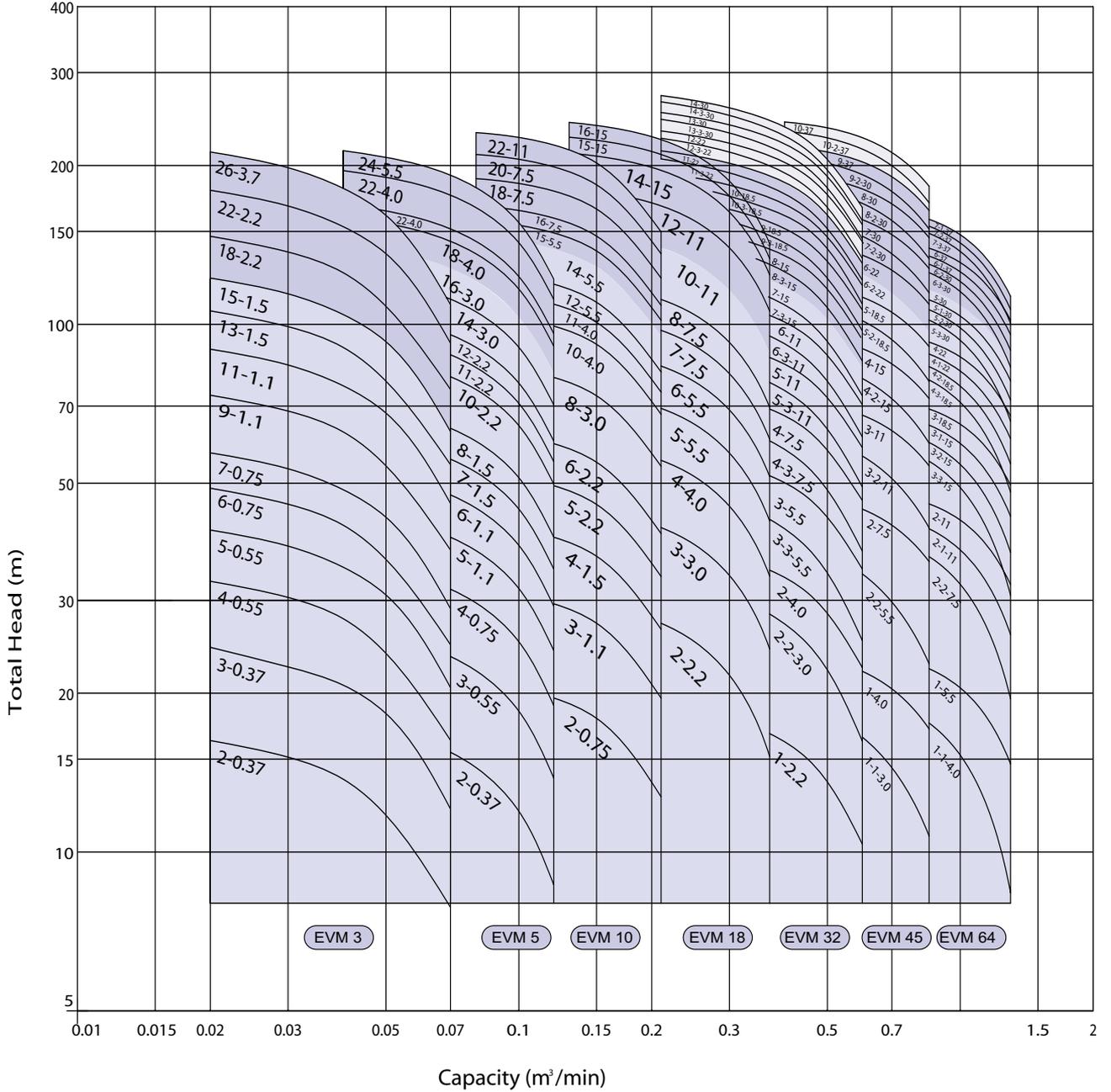


PERFORMANCE TABLE (EVM 3, 5, 10, 18, 32, 45, 64)

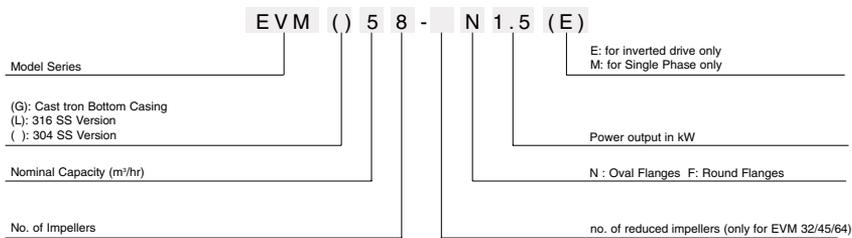
EVM

16 Bar 25 Bar 30 Bar

50Hz



MODEL CODE



PERFORMANCE TABLE (EVM 2, 4, 8,16, 30, 60)
EVM

Pump type EVM		kW	Capacitor		Absorbed Current (A)				l/min m ³ /h	Q=Capacity									
1-Phase	3-Phase		μF	V _c	1~	3~ 230V	3~ 400V	3~ 690V		20	40	60	75	80	120	150	225	300	400
								H=Total head											
								1,2	2,4	3,6	4,5	4,8	7,2	9,0	13,5	18	24		
EVM2 2N0,37 M	EVM2 2N0,37	0,37	10	400	3,0	1,65	0,95	-	16,8	12,8	7,5	-	-	-	-	-	-		
EVM2 3N0,37 M	EVM2 3N0,37	0,37	10	400	3,0	1,65	0,95	-	25,2	19,2	11,1	-	-	-	-	-	-		
EVM2 4N0,55 M	EVM2 4N0,55	0,55	12	400	3,8	2,34	1,35	-	33,9	26	15,2	-	-	-	-	-	-		
EVM2 5N0,55 M	EVM2 5N0,55	0,55	12	400	3,8	2,34	1,35	-	42	32,5	18,8	-	-	-	-	-	-		
EVM2 6N0,75 M	EVM2 6N0,75	0,75	20	400	5,3	2,8	1,6	-	50,5	38	22,5	-	-	-	-	-	-		
EVM2 7N0,75 M	EVM2 7N0,75	0,75	20	400	5,3	2,8	1,6	-	58,8	44,3	26,1	-	-	-	-	-	-		
EVM2 9N1,1 M	EVM2 9N1,1	1,1	30	400	6,5	4,0	2,3	-	75,7	58,1	33,8	-	-	-	-	-	-		
EVM2 11N1,1 M	EVM2 11N1,1	1,1	30	400	6,5	4,0	2,3	-	91,1	68,7	39,5	-	-	-	-	-	-		
EVM2 13N1,5 M	EVM2 13N1,5	1,5	40	400	9,5	5,7	3,3	-	109	84	48,8	-	-	-	-	-	-		
EVM2 15N1,5 M	EVM2 15N1,5	1,5	40	400	9,5	5,7	3,3	-	126	95,5	55,9	-	-	-	-	-	-		
EVM2 18F/2,2 M	EVM2 18F/2,2	2,2	60	400	13	7,6	4,4	-	156	120	74	-	-	-	-	-	-		
EVM2 22F/2,2 M	EVM2 22F/2,2	2,2	60	400	13	7,6	4,4	-	186	141,2	81,7	-	-	-	-	-	-		
EVM2 26F/3,0	EVM2 26F/3,0	3,0	-	-	-	10,9	6,3	-	220	165,1	105	-	-	-	-	-	-		
EVM4 2N0,37 M	EVM4 2N0,37	0,37	10	400	3,0	1,6	0,95	-	-	17,2	15,8	13,9	13,4	6,9	-	-	-		
EVM4 3N0,55 M	EVM4 3N0,55	0,55	12	400	3,8	2,3	1,35	-	-	25,7	23,4	21	20,2	10,5	-	-	-		
EVM4 4N0,75 M	EVM4 4N0,75	0,75	20	400	5,3	2,8	1,6	-	-	34,9	32	28,4	27,4	15,5	-	-	-		
EVM4 5N1,1 M	EVM4 5N1,1	1,1	30	400	6,5	4,0	2,3	-	-	44,1	40,6	36,3	35	19,8	-	-	-		
EVM4 6N1,1 M	EVM4 6N1,1	1,1	30	400	6,5	4,0	2,3	-	-	53,2	48,2	43,5	42	24	-	-	-		
EVM4 7N1,5 M	EVM4 7N1,5	1,5	40	400	9,5	5,7	3,3	-	-	61,8	56,5	50,9	49	27,7	-	-	-		
EVM4 8N1,5 M	EVM4 8N1,5	1,5	40	400	9,5	5,7	3,3	-	-	71,6	65,8	58,2	57,1	33	-	-	-		
EVM4 10N/2,2 M	EVM4 10N/2,2	2,2	60	400	13	7,6	4,4	-	-	88,2	81	72,5	70,6	39,6	-	-	-		
EVM4 11N/2,2 M	EVM4 11N/2,2	2,2	60	400	13	7,6	4,4	-	-	98	90,2	81,8	78,6	45	-	-	-		
EVM4 12N/2,2 M	EVM4 12N/2,2	2,2	60	400	13	7,6	4,4	-	-	106	97,4	87,2	84	47,5	-	-	-		
-	EVM4 14N/3,0	3,0	-	-	-	10,9	6,3	-	-	127	116	105,7	102,2	60,5	-	-	-		
-	EVM4 16N/3,0	3,0	-	-	-	10,9	6,3	-	-	142	130	118	116,7	67,6	-	-	-		
-	EVM4 19F/4,0	4,0	-	-	-	14,2	8,2	-	-	168	154,2	138,2	134,6	75,2	-	-	-		
-	EVM4 22F/4,0	4,0	-	-	-	14,2	8,2	-	-	195	180	163,5	158,1	88,9	-	-	-		
EVM8 2N0,75 M	EVM8 2N0,75	0,75	20	400	5,3	2,8	1,6	-	-	-	-	21,1	20,8	19,2	17,1	10,4	-		
EVM8 3N1,1 M	EVM8 3N1,1	1,1	30	400	6,5	4,0	2,3	-	-	-	-	32	31,8	29,5	26,8	16,7	-		
EVM8 4N1,5 M	EVM8 4N1,5	1,5	40	400	9,5	5,7	3,3	-	-	-	-	42,8	42,2	40	36,1	22,6	-		
EVM8 5N/2,2 M	EVM8 5N/2,2	2,2	60	400	13	7,6	4,4	-	-	-	-	53,6	53	49,1	44,3	28,3	-		
EVM8 6N/2,2 M	EVM8 6N/2,2	2,2	60	400	13	7,6	4,4	-	-	-	-	64,4	64,2	59	53,6	33,8	-		
-	EVM8 8N/3,0	3,0	-	-	-	7,6	6,3	-	-	-	-	85,7	85	80,2	72,5	45,8	-		
-	EVM8 10N/4,0	4,0	-	-	-	10,9	8,2	-	-	-	-	107	106	98,4	87,9	56,5	-		
-	EVM8 11N/4,0	4,0	-	-	-	14,2	8,2	-	-	-	-	117	116,2	108	97,8	61,4	-		
-	EVM8 12N/5,5	5,5	-	-	-	14,2	11,5	6,6	-	-	-	129	127,1	118,4	107,5	67,8	-		
-	EVM8 14N/5,5	5,5	-	-	-	-	11,5	6,6	-	-	-	150	148,3	137,5	124,8	79,1	-		
-	EVM8 15F/5,5	5,5	-	-	-	-	11,5	6,6	-	-	-	162	160,7	148,7	134,2	86,6	-		
-	EVM8 16F/7,5	7,5	-	-	-	-	15,3	8,8	-	-	-	171	170	157,8	140,9	90,4	-		
-	EVM8 18F/7,5	7,5	-	-	-	-	15,3	8,8	-	-	-	193	191,2	176,2	158	102	-		
-	EVM8 20F/7,5	7,5	-	-	-	-	15,3	8,8	-	-	-	219	217,2	202,3	183,2	121	-		
EVM16 2F/2,2 M	EVM16 2F/2,2	2,2	60	400	13	7,6	4,4	-	-	-	-	-	-	29	26,2	21,1	10,6		
-	EVM16 3F/3,0	3,0	-	-	-	10,9	6,3	-	-	-	-	-	-	43,6	38,1	30,7	15,4		
-	EVM16 4F/4,0	4,0	-	-	-	14,2	8,2	-	-	-	-	-	-	58,2	52	42,3	22,3		
-	EVM16 5F/5,5	5,5	-	-	-	-	11,5	6,6	-	-	-	-	-	73,8	67,1	54,9	29,5		
-	EVM16 6F/5,5	5,5	-	-	-	-	11,5	6,6	-	-	-	-	-	86,3	79,8	65	35,8		
-	EVM16 7F/7,5	7,5	-	-	-	-	15,3	8,8	-	-	-	-	-	103	92,5	76,5	41,3		
-	EVM16 8F/7,5	7,5	-	-	-	-	15,3	8,8	-	-	-	-	-	119	108	88,1	49,2		
-	EVM16 10F/11	11	-	-	-	-	20,4	11,8	-	-	-	-	-	148	132,2	108,9	59		
-	EVM16 12F/11	11	-	-	-	-	20,4	11,8	-	-	-	-	-	181	164,5	138	77,6		
-	EVM16 14F/15	15	-	-	-	-	27,6	15,9	-	-	-	-	-	207	186,5	152,3	82,6		
-	EVM16 15F/15	15	-	-	-	-	27,6	15,9	-	-	-	-	-	226	207	171,8	100		
-	EVM16 16F/15	15	-	-	-	-	27,6	15,9	-	-	-	-	-	236	215,2	181	108		

Pump type EVM	kW	Absorbed Current (A)			l/min m ³ /h	Q=Capacity			l/min m ³ /h	400 24	900 32	1200 72
		230V	400V	690V		210	420	600				
		3-Phase			H=Total head							
		230V	400V	690V	12,6	25,2	36					
EVM30 2F/4	4	12,9	7,4	-	38	32	21,5					
EVM30 3F/5,5	5,5	-	10,5	6,1	56	46	30					
EVM30 4F/7,5	7,5	-	13,9	8,1	77	64	42					
EVM30 6F/11	11	-	20,0	11,6	112	92	62,5					
EVM30 8F/15	15	-	26,5	15,4	155	127	88					
EVM30 10F/18	18,5	-	32,0	18,6	193	162	112					
EVM30 12F/22	22	-	38,5	22,3	232	195	132					
EVM60 2F/5,5	5,5	-	10,5	6,1				30	24	14		
EVM60 3F/7,5	7,5	-	13,9	8,1				43	34,5	19,5		
EVM60 4F/11	11	-	20,0	11,6				59,5	48	28,5		
EVM60 6F/15	15	-	26,5	15,4				83,5	67,5	40		
EVM60 7F/18	18	-	32,0	18,6				103,5	84	52		
EVM60 8F/22	22	-	38,5	22,3				120	97,5	62		

